

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>HP 499/03 PCT</b>	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. <b>PCT/DE2004/001639</b>	International filing date ( <i>day/month/year</i> ) <b>23. 07. 2004</b>	Priority date ( <i>day/month/year</i> ) <b>25. 07. 2003</b>
International Patent Classification (IPC) or national classification and IPC <b>H01M8/24</b>		
Applicant <b>WEBASTO AG</b>		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																									
<p>4. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>		<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/DE2004/001639

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-17 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 1-18 \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/5-5/5 \_\_\_\_\_ as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/DE2004/001639

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>1-16</u>	YES
	Claims	<u>17, 18</u>	NO
Inventive step (IS)	Claims	<u>1-16</u>	YES
	Claims	<u>17, 18</u>	NO
Industrial applicability (IA)	Claims	<u>1-18</u>	YES
	Claims	<u></u>	NO
2. Citations and explanations (Rule 70.7)			
<p>1. This report makes reference to the following documents:</p> <p>D1: DE 196 50 903 A1</p> <p>D2: DE 199 60 674 A1</p> <p>D3: DE 100 28 395 A1</p> <p>D4: EP-A-1 032 065</p> <p>D5: DE 199 60 516 A1</p>			
<p>2. CLARITY:</p>			
<p>2.1 The application does not meet the requirements of PCT Article 6 because claim 17 is unclear.</p>			
<p>2.2 Claim 17 has been drafted as a "product-by-process" claim. Claims to products in which the products are characterised by their production process can only be allowed if the products as such meet patentability requirements, i.e. are novel and inventive, <i>inter alia</i>. A product does not become novel only because it was produced by a novel process. A claim which characterises a product by a production process should be regarded</p>			

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International application No.

PCT/DE2004/001639

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	<p>as being directed to the product as such (cf. PCT International Search and Preliminary Examination Guidelines, page 43, 5.26).</p> <p>3. NOVELTY:</p> <p>3.1 The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 17 and 18 is not novel (PCT Article 33(2)).</p> <p>3.2 Each of the documents D1 (claims 13-15; figures 1-3), D2 (column 5, lines 15-18; figure 2), D3 (claims 1-30; figures 2-6), D4 (paragraphs 11, 19; claims 1, 10; figures 4B, 5B, 6B, 8) and D5 (column 11, lines 40-51; figure 1) discloses:</p> <p>a fuel cell stack characterised in that at least two sealing sections (at least substantially) aligned in the stacking direction of the fuel cell stack are joined by a sealing compound.</p> <p>The subject matter of claims 17 and 18 is thus not novel.</p> <p>3.3.1 Documents D1 and D2 are regarded as the prior art closest to the subject matter of claims 1-16. Each of the documents D1 (claims 13-15; figures 1-3) and D2 (column 5, lines 15-18; figure 2) discloses:</p> <p>a process for producing a fuel cell or fuel cell</p>

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	<p>stack having the following steps:</p> <ul style="list-style-type: none"><li>(a) providing a first repeating unit with a first sealing surface and at least one second repeating unit with a second sealing surface; and</li><li>(b) forming at least one sealing section between the first sealing surface and the second sealing surface.</li></ul> <p>3.3.2 The subject matter of claim 1 therefore differs from the known process for producing a fuel cell or fuel cell stack in that step (b) comprises the following additional steps (b1 and b2):</p> <ul style="list-style-type: none"><li>(b1) arrangement of a template between the first sealing surface and the second sealing surface, the template comprising at least one marginal region arranged next to the sealing section to be formed; and</li><li>(b2) introduction of a sealing compound into a region delimited by the first sealing surface, the second sealing surface and the marginal region of the template.</li></ul> <p>The subject matter of claim 1 is thus novel.</p> <p>4. INVENTIVE STEP</p> <p>The present invention can therefore be considered to address the problem of devising an alternative process for producing a fuel cell stack, in which error-proneness, which is dependent on the number of seals and the probability of failure of an</p>

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	<p>individual seal, can be lowered, and manufacture in parallel is made possible.</p> <p>Proceeding from documents D1 or D2 as the closest prior art, the process according to claim 1 would not be obvious to a person skilled in the art, nor could it be obviously derived from the available prior art. This process consists in providing a template between every two superimposed repeating units of the fuel cell stack, and in introducing a sealing compound into a region which is delimited by the sealing surfaces of the repeating units and the marginal region of the templates, in order to reduce the error-proneness of the process by reducing the number of individual seals, and make parallel manufacture possible.</p> <p>The claimed process for producing a fuel cell stack as per independent claim 1 therefore involves an inventive step.</p> <p>5. Claims 2-16 are dependent on claim 1 and thus also meet the PCT novelty and inventive step requirements.</p>